

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,245	12/31/2003	Young Hun Seo	20059/PIA31207	8864
34431 7	590 12/17/2004		EXAMINER	
HANLEY, FLIGHT & ZIMMERMAN, LLC			NHU, DAVID	
20 N. WACKE SUITE 4220	R DRIVE		ART UNIT	PAPER NUMBER
CHICAGO, IL	60606		2818 DATE MAILED: 12/17/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.	Applicant(s)					
10/750,245	SEO, YOUNG HUN					
Examiner	Art Unit	- 1				
David Nhu	2818	A				
(OR REMAINS) CLOSED in this ap or other appropriate communication	plication. If not include n will be mailed in due	ed course. THIS				
3. The drawings filed on are accepted by the Examiner.						
 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: 						
of this communication to file a reply ENT of this application.	complying with the rec	quirements				
5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.						
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) ☐ hereto or 2) ☐ to Paper No./Mail Date (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).						
FOR THE DEPOSIT OF BIOLOGIC	Must be submitted. P	vote the				
6. Interview Summary Paper No./Mail Da 7. Examiner's Amendi 8. Examiner's Statement 9. Other	(PTO-413), te ment/Comment ent of Reasons for Allo					
	Examiner David Nhu Pars on the cover sheet with the co (OR REMAINS) CLOSED in this appor other appropriate communication GHTS. This application is subject to and MPEP 1308. Ider 35 U.S.C. § 119(a)-(d) or (f). Ideen received. Ideen received in Application No Comments have been received in this communication to file a reply ENT of this application. Interview Summary Paper No./Mail Dava Paper No./	Examiner David Nhu 2818 Pars on the cover sheet with the correspondence address on the cover sheet with the correspondence address on the attached sheet attached in this application. If not include or other appropriate communication will be mailed in due GHTS. This application is subject to withdrawal from issurand MPEP 1308. der 35 U.S.C. § 119(a)-(d) or (f). been received. been received in Application No currents have been received in this national stage application of this communication to file a reply complying with the received. Note the attached EXAMINER'S AMENDMENT or New reason(s) why the oath or declaration is deficient. It be submitted. On's Patent Drawing Review (PTO-948) attached at Amendment / Comment or in the Office action of the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason of the new ritten on the drawings in the front (not the new reason). Sit of BIOLOGICAL MATERIAL must be submitted. In paper No./Mail Date 5. □ Notice of Informal Patent Application (PTC 6. □ Interview Summary (PTO-413), Paper No./Mail Date 7. □ Examiner's Amendment/Comment of Reasons for Allowed Reasons fo				

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the change and/or additions be unaceptable to applicant, an amendment may be filed as provided by 37 CFR
 To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Drawings:

Figures 1A, 1B should be designated by a legend such as--**Prior Art**--because only that which is old is illustrated. See MPEP & 608.02(g). Submit new figures 1A, 1B.

REASONS FOR ALLOWANCE

- 2. Claims 1-6 are allowed.
- 3. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests as cited in claims 1: performing a first dry etching process on the gate polysilicon layer under first process conditions, wherein upper sidewall polymers are formed on an upper portion of the gate polysilicon layer; performing a second dry etching process on the gate polysilicon layer under second process conditions, wherein lower sidewall polymers are formed on sidewalls of a lower portion of the gate polysilicon layer by sidewall polymerization, the lower sidewall polymers being thinner than the upper sidewall polymers; performing a third dry etching process on the gate polysilicon layer to remove the upper and lower sidewall polymers, wherein the lower portion of the gate plolysilicon layer is over etched so that a CD of the upper portion of the gate is greater than a CD of the lower portion of the gate.

Application/Control Number: 10/750,245

Art Unit: 2818

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Fukuda (5,880,035): DRY ETCHING METHOD.

6. Any inquiry concerning this communication on earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

The examiner's supervisor, David Nelms can be reached on (571)272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956

David Nhu

December 12, 2004

DAVID NHU PRIMARY EXAMINER Page 3